

ASSIGNMENT 3

Textbook Assignment: "Drafting: Fundamentals and Techniques; Reproduction Process." Pages 3-1 through 3-51.

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| <p>3-1. For you to be positioned comfortably at your drawing board, your line of sight, in relation to the drawing surface, should be at approximately what angle?</p> <ol style="list-style-type: none">1. 30°2. 45°3. 60°4. 90° <p>3-2. If a drawing board has a severely marred drawing surface, you should cover the surface with which of the following materials?</p> <ol style="list-style-type: none">1. A large sheet of butcher's paper2. Two thicknesses of drawing paper3. Laminated vinyl material4. Self-adhesive linoleum <p>3-3. What step should you take to improve the surface of drawing paper that has become scratched from excessive erasing?</p> <ol style="list-style-type: none">1. Rub the area smooth with your thumbnail2. Rub the area lightly with pounce3. Cover the damaged area with transparent tape4. Apply a thin coating of clear acrylic spray <p>3-4. Which of the following drawing pencils should you select for the initial layout of a drawing?</p> <ol style="list-style-type: none">1. 2B2. F3. H4. 4H <p>3-5. When you view the back of a pencil drawing (on tracing paper) that is held against a light and see only indistinct lines, what, if anything, should you do?</p> <ol style="list-style-type: none">1. Select a harder pencil to darken the lines2. Select a softer pencil to darken the lines3. Exert more pressure on the pencil used to prepare the drawing4. Nothing; viewing the drawing from the back serves no purpose | <p>3-6. You should always sharpen a pencil on its unlettered end for which of the following reasons?</p> <ol style="list-style-type: none">1. To avoid breaking the lead2. To retain the grade symbol3. To retain the manufacturer's name4. To permit easier dressing of the point <p>3-7. The mechanical pencil pointer produces what type of point?</p> <ol style="list-style-type: none">1. Chisel2. Elliptical3. Conical4. Wedge <p>3-8. A mechanical pencil has which of the following advantages over a wooden pencil?</p> <ol style="list-style-type: none">1. It is more comfortable to use2. It does not need to be sharpened as frequently3. It stays at a constant length4. It uses leads that do not break as readily <p>3-9. When drawing a horizontal line, you should hold the pencil at what incline?</p> <ol style="list-style-type: none">1. 30°2. 45°3. 60°4. 75° <p>3-10. To draw vertical lines, you should (a) incline the pencil toward what part of the board and (b) draw the lines in what direction?</p> <ol style="list-style-type: none">1. (a) Top (b) from bottom to top2. (a) Top (b) from top to bottom3. (a) Bottom (b) from bottom to top4. (a) Bottom (b) from top to bottom |
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- 3-11. With a T-square as a base and using 30°-60° and 45° triangles in combination, inclined lines will be produced at which of the following angles?
1. 15° and 75°
 2. 30° and 45°
 3. 60° only
 4. 30° and 60°
- 3-12. To lay off an angle from a given line, what marks on the protractor should you align for best accuracy?
1. Center mark and 0° mark only
 2. 0° and 180° marks only
 3. 0°, 180°, and center marks
 4. 0°, 90° and 180° marks
- 3-13. In using a bow pencil to draw a circle, the drafter should take which of the following actions?
1. Rotate the bow pencil clockwise
 2. Lean the bow pencil slightly forward
 3. Apply even pressure
 4. All of the above
- 3-14. When using a compass and pen attachment to draw a circle, what actions should you take to ensure proper ink flow?
1. Increase the forward incline of the compass
 2. Adjust the needle leg of the compass to ensure it is perpendicular to the drawing surface
 3. Adjust the pen leg of the compass to ensure that it is perpendicular to the drawing surface
 4. Rub additional pounce into the drawing
- 3-15. A french curve is used to draw what types of lines?
1. Smooth, circular lines
 2. Smooth, noncircular lines
 3. Circular, parallel lines
 4. Arcs of nonconcentric circles
- 3-16. In using a french curve to draw a line, what is the first step you should take?
1. Lightly sketch in the line between the plotted points
 2. Avoid abrupt changes in curvature
 3. Place the french curve so that it intersects at least two plotted points
 4. Stop short of the last plotted point
- 3-17. When possible, you should use drafting templates for which of the following reasons?
1. They are as accurate as any other drawing method and usually much faster
 2. They are not as accurate as other drawing methods but usually faster
 3. They are more accurate than other drawing methods and usually faster
 4. They are more accurate than other drawing methods although slower
- 3-18. Hairspring dividers are used for which of the following purposes?
1. Transferring measurements of different scales and stepping off a series of equal distances
 2. Dividing lines into equal parts
 3. Transferring measurements of the same scale and stepping off a series of equal distances
 4. Both 2 and 3 above
- 3-19. Which of the following actions is NOT a proper use of the drafting scale?
1. To set a compass, mark the desired distance and adjust the instrument directly on the face of the scale
 2. For measuring horizontal distances, point the desired scale face away from you
 3. To measure distances, mark off short dashes at right angles to the scale face
 4. To make successive measurements on a line, do not move the scale until necessary

3-20. Standard drawing sheet sizes are used for what primary reason?

1. To standardize the size of all drawings
2. To eliminate the waste of expensive tracing paper
3. To ensure that the supply department orders the correct sizes of trading paper
4. To facilitate filing

3-21. What are the dimensions of a size "C" sheet of drawing paper?

1. 11 in by 17 in
2. 17 in by 22 in
3. 22 in by 44 in
4. 34 in by 44 in

3-22. What are the actual dimensions inside the border lines on a size "D" sheet of drawing paper?

1. 20 in by 33 in
2. 21 in by 32 in
3. 21 in by 33 in
4. 21 in by 32½ in

3-23. On a sheet of "F" size drawing paper, what should be the dimensions between the trim lines?

1. 27½ in by 39½ in
2. 28 in by 40 in
3. 34 in by 44 in
4. 33½ in by 43½ in

3-24. What is the primary purpose of the title block on a drawing?

1. To describe the drawing
2. To tell who drew the drawing
3. To specify who is ultimately responsible for the drawing
4. To identify the drawing

3-25. The title block is generally located in what part of the drawing?

1. Lower right corner
2. Lower left corner
3. Lower center
4. Upper right corner

3-26. On a construction drawing, the revision block is placed at what corner of the drawing?

1. Lower right
2. Lower left
3. Upper right
4. Upper left

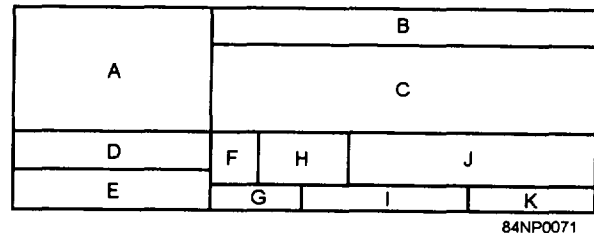


Figure 3A

IN ANSWERING QUESTIONS 3-27 THROUGH 3-29, REFER TO FIGURE 3A.

3-27. In what space should the terms "as shown," "as noted," or "none" be correctly entered?

1. E
2. G
3. I
4. J

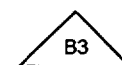
3-28. The five-digit number that identifies the government activity responsible for the design of the item is entered in what space?

1. D
2. E
3. F
4. H

3-29. What space holds the name of the drafter preparing the drawing?

1. A
2. D
3. E
4. J

3-30. What information about the drawing is indicated when the revision block contains the following symbol?



84NP0072

1. It is the third change incorporated in the second revision
2. It is the third change incorporated in the third revision
3. It is the second change incorporated in the second revision
4. It is the second change incorporated in the third revision

3-31. What feature do all the lines in the system of line conventions have in common?

1. They convey information
2. They are drawn with a pen guided by a straightedge
3. They are drawn with a compass
4. They are drawn freehand


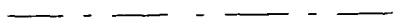
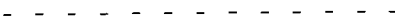
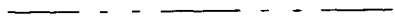
3-32. How should construction lines be drawn?

1. Thick and dark
2. Dark enough to see, but light enough to erase easily
3. Thin and dark
4. With a soft pencil

3-33. To indicate the travel of a moving center, which of the following lines should you use?

1. Center lines
2. Phantom lines
3. Reference lines
4. Visible lines

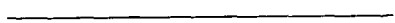
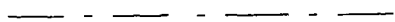
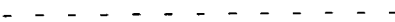
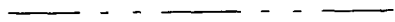
3-34. What line is an example of a center line?

1. 
2. 
3. 
4. 

3-35. What line is a solid, thick line and defines the outlines of an object in a drawing?

1. Datum
2. Dimension
3. Extension
4. Visible

3-36. In a drawing of a certain view of an object, the features of the object that CANNOT be seen are indicated by what line?

1. 
2. 
3. 
4. 




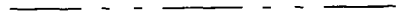
3-37. How should arrowheads be drawn?

1. Between 1/4 and 1/2 in long, the length twice the spread, and filled in
2. Between 1/4 and 1/2 in long, the length twice the spread, and not filled in
3. Between 1/8 and 1/4 in long, the length three times the spread, and filled in
4. Between 1/8 and 1/4 in long, the length three times the spread, and not filled in

3-38. Drawing space is saved in certain large-scale detailed drawings by omitting unimportant parts that are continuous and have the same size and shape. What lines are used to indicate these omitted parts?

1. Section
2. Leader
3. Break
4. Cutting plane

3-39. The alternate positions of a switch handle can be indicated on a drawing by the use of what lines?

1. 
2. 
3. 
4. 

3-40. If an internal section of an object is needed, which of the following lines would indicate the plane from which the sectional view was taken?

1. Cutting plane
2. Sectional plane
3. Datum plane
4. Reference plane

IN ANSWERING QUESTIONS 3-41 THROUGH 3-44, SELECT THE TYPE OF LINE FROM THE FOLLOWING LIST THAT BEST MATCHES THE DESCRIPTION.

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| <p>A. STITCH LINE
B. DATUM LINE
C. MATCH LINE</p> |
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3-41. A line which indicates the plane from which an elevation is measured.

1. A
2. B
3. C

3-42. A line that connects corresponding points on different sheets of the same drawing.

1. A
2. B
3. C

3-43. The type of line that indicates sewing lines on an article.

1. A
2. B
3. C

- 3-44. A line that looks like a phantom line but is used differently.
1. A
 2. B
 3. C
- 3-45. In a pencil drawing, when should you draw the nonhorizontal and nonvertical lines?
1. After drawing the extension and dimension lines
 2. After drawing the horizontal and vertical lines
 3. Before drawing the horizontal and vertical lines
 4. Before drawing any circles or arcs
- 3-46. On a drawing, which of the following lines are the last to be inked?
1. Horizontal lines
 2. Vertical lines
 3. Irregular curves
 4. Border lines
- 3-47. As you practice freehand lettering, you develop "writer's cramp." What is the probable cause?
1. Applying excessive downward pressure on the pencil
 2. Applying too little downward pressure on the pencil
 3. Resting only the ball of the hand on the drawing board
 4. Gripping the pencil too tightly
- 3-48. Which of the following pencil grades is most commonly used for freehand lettering on construction drawings?
1. 2B or 3B
 2. B or H
 3. F or H
 4. H or 2H
- 3-49. What guidelines are used for lettering that requires only capitals?
1. Capline and baseline only
 2. Capline and dropline only
 3. Capline, waistline, and baseline
 4. Capline, baseline, and dropline
- 3-50. If vertical guidelines are used to keep letters vertical, how should they be spaced along the horizontal guidelines?
1. Approximately every fifth letter
 2. Approximately every two words
 3. At the beginning, at the middle, and at the end of each line of lettering
 4. At random
- 3-51. The number 6 on the inner circle of the Ames lettering instrument is aligned with the index on the outer circle. What is the distance between the capline and baseline produced by this setting?
1. $\frac{3}{32}$ in
 2. $\frac{3}{16}$ in
 3. $\frac{1}{4}$ in
 4. $\frac{3}{8}$ in
- 3-52. For lowercase lettering, what is the normal spacing between continuous lines of lettering?
1. One half of the distance between the capline and dropline
 2. Two thirds of the distance between the capline and baseline
 3. Three times the distance between the capline and waistline
 4. Equal to the distance between the capline and the baseline
- 3-53. Which of the following statements concerning the formation of single-stroke Gothic letters is NOT true?
1. Each letter is drawn by one single continuous stroke
 2. All inclined strokes are drawn from the top down
 3. All horizontal strokes are drawn from left to right
 4. All curved strokes are drawn from above downward

- 3-54. To balance letters in words, which of the following actions should you take?
1. Extend the horizontal stroke of T when it precedes A
 2. Compress the O to a narrower elliptical shape when it is between letters that have vertical strokes
 3. Slightly compress the letter H
 4. Place the central horizontal bar of H, F, and E slightly below center to create an optical illusion of widening
- 3-55. If the Ames lettering instrument is set on 8 to make capital letter guidelines for drawing notes, what number should be set on the instrument to produce guidelines for numerals that will be used in the same drawing notes?
1. 5
 2. 6
 3. 7
 4. 8
- 3-56. Lowercase letters should NOT be used in which of the following situations?
1. For notes on maps
 2. In combination with capitals on Navy drawings
 3. On Navy drawings where the required size of lettering is more than one-fourth in high
 4. On construction drawings and title blocks
- 3-57. A block of general notes on a drawing consists of several lines of lettering. Which of the following factors contributes the most to the appearance of the notes?
1. Spacing between letters and words
 2. Formation of each letter
 3. Size of the lettering
 4. Spacing between the lines
- 3-58. In freehand Gothic lettering, the letters A and V in "HAVE" and the letters H and O in "HOLE" are properly spaced by moving the letters closer together.
1. True
 2. False
- 3-59. For proper spacing of the letters in the word "NICKEL," you should provide less space between the letters N and I than the letters I and C.
1. True
 2. False
- 3-60. When freehand lettering the word "WORK," you should provide the same amount of space between the letters W, O, and R.
1. True
 2. False
- 3-61. For good appearance, the spacing between words should be equal to what size interval?
1. $1\frac{1}{2}$ times the space occupied by the letter N
 2. $1\frac{1}{2}$ times the height of the capitals
 3. The distance between the capline and the dropline
 4. The space occupied by the letter O
- 3-62. As applied to lettering, what does the term "justifying" mean?
1. Adjusting words or letter spacing to make a line of lettering fit a given length
 2. Spacing of letters for good appearance of words
 3. Centering a line or lines of lettering about the center of a given area
 4. Using sample lettering as a guide for centering
- 3-63. Using the templates in a standard Leroy lettering set, you can make letters of what maximum height?
1. $1\frac{1}{2}$ in
 2. $1\frac{3}{4}$ in
 3. 1 in
 4. $\frac{1}{2}$ in
- 3-64. What part of the Leroy lettering set establishes line thickness of letters?
1. Ink reservoir
 2. Tracing pin
 3. Cleaning pin
 4. Templates

- 3-65. What advantage does the adjustable scriber have over the standard fixed scriber?
1. Templates with larger lettering may be used
 2. Larger pens may be inserted in the scriber to produce thicker lines
 3. Templates with special types of lettering may be used
 4. Inclined lettering may be produced with standard templates
- 3-66. Concerning the adjustment of the scriber, which of the following statements is a correct procedure?
1. Rough adjustment of the scriber adjustment screw should be made after the pen has been filled
 2. The cleaning pen must be removed for proper rough adjustment
 3. Rough adjustment should be made when the cleaning pen barely touches the paper, before the pen is filled
 4. Final adjustment should be made after the locknut has been tightened
- 3-67. Which, if any, of the following requirements is necessary for reproduction rooms?
1. Lighting level equal to that of the drafting room
 2. Sufficient room ventilation
 3. Additional heat for protection of the reproduction paper
 4. None of the above
- 3-68. In the reproduction of construction drawings, what process is most commonly used by the Navy?
1. Vacuum frames
 2. Diazo or ammonia vapor
 3. Sun frames
 4. Photographic contact
- 3-69. Before using the Blu-Ray reproduction machine, all EAs should take which of the following actions?
1. Attend the formal school for operators
 2. Obtain on-the-job training at one of the construction regiments
 3. Acquire the necessary operator license
 4. Become thoroughly familiar with the manufacturer's operating and maintenance instructions
- 3-70. When making prints using the Model 842 printer, which of the following actions should you take?
1. Place the chemical side of the reproducing paper down
 2. Run the original tracing through the machine before the reproducing paper
 3. Feed the sensitized paper into the printer against the grain
 4. Ensure that the leading edge of both the tracing and the sensitized paper are even, uncurled, and uncreased
- 3-71. What substance, solution, or cleaning method should you use to clean the glass-printing cylinder and lamps of the White printer?
1. Plain soap and water
 2. Scouring powder and glass cleaner
 3. Manufacturer's recommended glass cleaner or an ammonia-water solution
 4. Soap, water, and scouring pad
- 3-72. When the prints received from the Blu-Ray machine are too light, what action should you take?
1. Increase the speed
 2. Decrease the speed
 3. Increase the vapor
 4. Decrease the vapor
- 3-73. What unit(s) of the printing section of the Ozalid machine carry(ies) the material around the revolving printing cylinder?
1. Pick-off assembly
 2. Feed belts
 3. Separator belts
 4. Roller guide
- 3-74. Some Ozalid machines are equipped with a second ammonia supply system. What is the name of that system?
1. Second ammonia system
 2. Second supply system
 3. Anhydrous ammonia system
 4. Hydrous ammonia system
- 3-75. What is the only positive method, if any, that you should use to obtain the correct speed for the Ozalid machine?
1. Consult the manufacturer's manual
 2. Check the label on the wrapper of the sensitized paper
 3. Run one or more test strips
 4. There is no positive method